

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: George JOYNES

Serial No.: NOT YET ASSIGNED

Filed: AUGUST 31, 2001

Title: IMPROVEMENTS IN OR RELATING TO FLUID FLOW SENSORS  
AND LEAK DETECTION SYSTEMS

PRELIMINARY AMENDMENT

Box PATENT APPLICATION  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please enter the following amendments to the claims prior  
to the examination of the application.

IN THE CLAIMS:

Please cancel claims 11 and 14.

Please amend claim 13 as follows:

(A copy of the marked-up version of the amended claim is  
are attached to this Preliminary Amendment).

13. (Amended) A leakage detection system as claimed in  
claim 12, further comprising apparatus for determining the  
presence of a leakage from a fluid system comprising a  
vibration sensor for sensing vibrations induced by passage of

0944996 083401  
T01E80" 92624660

the fluid through the leakages, a segmentor for segmenting the sensed vibrations into at least two spectral bands, a comparitor for comparing the amplitudes of the spectral bands with predetermined values to determine flow rate.

Please add new claims 15-17 as follows:

15. (New) Apparatus as claimed in claim 13 wherein the sensor includes a piezo-electric material.

16. (New) Apparatus as claimed in claim 15 wherein the sensor includes a PVDF film.

17. (New) Apparatus as claimed in claim 15 wherein the sensor comprises one of a train gauge, geophone or hydrophone.

REMARKS

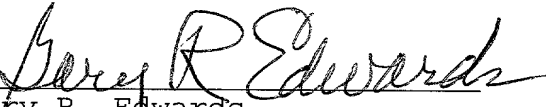
Entry of the amendments to claims before examination of the application is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #3036/50371).

Respectfully submitted,

August 31, 2001

  
Gary R. Edwards  
Registration No. 31,824

CROWELL & MORING, LLP  
P.O. Box 14300  
Washington, DC 20044-4300  
Telephone No.: (202) 624-2500  
Facsimile No.: (202) 628-5116

GRE:pct

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please cancel claims 11 and 14.

Please amend claim 13 as follows:

13. (Amended) A leakage detection system as claimed in claim 12 [including apparatus as claimed in claims 7 to 11], further comprising apparatus for determining the presence of a leakage from a fluid system comprising a vibration sensor for sensing vibrations induced by passage of the fluid through the leakages, a segmentor for segmenting the sensed vibrations into at least two spectral bands, a comparitor for comparing the amplitudes of the spectral bands with predetermined values to determine flow rate.